



553731

*Illinois Environmental Protection Agency*

L1958130001 Whiteside Co.  
Rock Valley Disposal  
TLD 984903294  
SF/HRS

***PRELIMINARY***

***ASSESSMENT***

***SCORESHEET***

*CONFIDENTIAL*

Rock Valley Disposal

Site Name: Rock Valley Disposal  
CERCLIS ID No.: 984903294  
Street Address: 30237 Plautz Road  
City/State/Zip: Rock Falls , Il 61071

Investigator: BRAD TAYLOR  
Agency/Organization: IEPA  
Street Address: 2200 CHURCHILL ROAD  
City/State: SPRINGFIELD, IL

Date: 6/11/93

WASTE CHARACTERISTICS

Waste Characteristics (WC) Calculations:

1 Rock Valley Disposal Landfill

WQ value maximum

Area 9.58E+05 sq ft

2.82E+02 2.82E+02

Ground Water Pathway Criteria List  
Suspected Release

Are sources poorly contained? (y/n/u)	Y
Is the source a type likely to contribute to ground water contamination (e.g., wet lagoon)? (y/n/u)	Y
Is waste quantity particularly large? (y/n/u)	Y
Is precipitation heavy? (y/n/u)	Y
Is the infiltration rate high? (y/n/u)	Y
Is the site located in an area of karst terrain? (y/n)	N
Is the subsurface highly permeable or conductive? (y/n/u)	Y
Is drinking water drawn from a shallow aquifer? (y/n/u)	Y
Are suspected contaminants highly mobile in ground water? (y/n/u)	U
Does analytical or circumstantial evidence suggest ground water contamination? (y/n/u)	U
Other criteria? (y/n)	N

SUSPECTED RELEASE? (y/n) Y

Summarize the rationale for Suspected Release:

A release to groundwater is suspected based on the quantity of unknown materials at this site and the geology of the area. Due to a high sand and gravel content and shallow aquifer, the potential for groundwater contamination exists. Nearby residents use shallow private wells, the closest being approximately 100 feet from the landfill.

Ground Water Pathway Criteria List  
Primary Targets

Is any drinking water well nearby? (y/n/u)	Y
Has any nearby drinking water well been closed? (y/n/u)	U
Has any nearby drinking water well user reported foul-testing or foul-smelling water? (y/n/u)	N
Does any nearby well have a large drawdown/high production rate? (y/n/u)	U
Is any drinking water well located between the site and other wells that are suspected to be exposed to a hazardous substance? (y/n/u)	N
Does analytical or circumstantial evidence suggest contamination at a drinking water well? (y/n/u).	Y
Does any drinking water well warrant sampling? (y/n/u)	Y
Other criteria? (y/n)	N

PRIMARY TARGET(S) IDENTIFIED? (y/n) Y

Summarize the rationale for Primary Targets:

The primary targets near Rock Valley Disposal were identified based on the distance in relation to the site. No analytical results are available to support a suspected release hypothesis. Primary targets have been identified due to the high permeability of the soil conditions and shallow aquifer.

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GROUND WATER PATHWAY SCORESHEETS

Pathway Characteristics

			Ref.
Do you suspect a release? (y/n)	Yes		
Is the site located in karst terrain? (y/n)	No		
Depth to aquifer (feet):	10		4
Distance to the nearest drinking water well (feet):	100		1,4
LIKELIHOOD OF RELEASE	Suspected Release	No Suspected Release	References
1. SUSPECTED RELEASE	550		
2. NO SUSPECTED RELEASE		0	
LR =	550	0	

Targets

TARGETS	Suspected Release	No Suspected Release	References
3. PRIMARY TARGET POPULATION 9 person(s)	90		
4. SECONDARY TARGET POPULATION Are any wells part of a blended system? (y/n) N	27	0	
5. NEAREST WELL	50	0	
6. WELLHEAD PROTECTION AREA None within 4 Miles	0	0	
7. RESOURCES	5	0	
T =	172	0	

WASTE CHARACTERISTICS

WC = 32 0

UND WATER PATHWAY SCORE:

37

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**Ground Water Target Populations**

Primary Target Population Drinking Water Well ID	Dist. (miles)	Population Served	Reference	Value
1 Fistler	0.02	3	1,4	30
2 unknown	0.10	3	1	30
3 unknown	0.20	3	1	30
None				
*** Note : Maximum of 5 Wells Are Printed ***				Total 90

Secondary Target Population Distance Categories	Population Served	Reference	Value
0 to 1/4 mile	8	1,2	1
Greater than 1/4 to 1/2 mile	11	1,2	1
Greater than 1/2 to 1 mile	37	1,2	2
Greater than 1 to 2 miles	212	1,2	3
Greater than 2 to 3 miles	861	1,2	7
Greater than 3 to 4 miles	1092	1,2	13
Total			27

Apportionment Documentation for a Blended System

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Surface Water Pathway Criteria List  
Suspected Release

Is surface water nearby? (y/n/u)	N
Is waste quantity particularly large? (y/n/u)	Y
Is the drainage area large? (y/n/u)	N
Is rainfall heavy? (y/n/u)	Y
Is the infiltration rate low? (y/n/u)	N
Are sources poorly contained or prone to runoff or flooding? (y/n/u)	N
Is a runoff route well defined(e.g.ditch/channel to surf.water)? (y/n/u)	N
Is vegetation stressed along the probable runoff path? (y/n/u)	N
Are sediments or water unnaturally discolored? (y/n/u)	N
Is wildlife unnaturally absent? (y/n/u)	N
Has deposition of waste into surface water been observed? (y/n/u)	N
Is ground water discharge to surface water likely? (y/n/u)	N
Does analytical/circumstantial evidence suggest S.W. contam? (y/n/u)	U
Other criteria? (y/n)	N

SUSPECTED RELEASE? (y/n) N

Summarize the rationale for Suspected Release:

A release to surface water from Rock Valley Disposal was not suspected based on two factors. First, distance is of importance because overland flow to the nearest surface water source is a 1/4 mile. Soil conditions would tend to limit surface flow and favor infiltration of water into groundwater.

Surface Water Pathway Criteria List  
Primary Targets

Is any target nearby? (y/n/u)      If yes:      N  
    N Drinking water intake  
      Fishery  
    U Sensitive environment

Has any intake, fishery, or recreational area been closed? (y/n/u)      N

Does analytical or circumstantial evidence suggest surface water  
contamination at or downstream of a target? (y/n/u)      N

Does any target warrant sampling? (y/n/u)      If yes:      N  
    N Drinking water intake  
      Fishery  
    U Sensitive environment

Other criteria? (y/n)      N

PRIMARY INTAKE(S) IDENTIFIED? (y/n)      N

Summarize the rationale for Primary Intakes:

continued -----

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continued -----

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Other criteria? (y/n) N

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PRIMARY FISHERY(IES) IDENTIFIED? (y/n)

Summarize the rationale for Primary Fisheries:

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Other criteria? (y/n) N

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PRIMARY SENSITIVE ENVIRONMENT(S) IDENTIFIED? (y/n) N

Summarize the rationale for Primary Sensitive Environments:

SURFACE WATER PATHWAY SCORESHEETS

Pathway Characteristics			Ref.
Do you suspect a release? (y/n)	No		
Distance to surface water (feet):	1320		1,4
Flood frequency (years):	1-10		
What is the downstream distance (miles) to:			
a. the nearest drinking water intake?	0.0		
b. the nearest fishery?	0.0		
c. the nearest sensitive environment?	0.0		
LIKELIHOOD OF RELEASE	Suspected Release	No Suspected Release	References
1. SUSPECTED RELEASE	0		
2. NO SUSPECTED RELEASE		500	
LR =	0	500	

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**Drinking Water Threat Targets**

TARGETS	Suspected Release	No Suspected Release	References
3. Determine the water body type, flow (if applicable), and number of people served by each drinking water intake.			
4. PRIMARY TARGET POPULATION 0 person(s)	0		
5. SECONDARY TARGET POPULATION Are any intakes part of a blended system? (y/n): N	0	0	
6. NEAREST INTAKE	0	0	
7. RESOURCES	0	5	
T =	0	5	

**Drinking Water Threat Target Populations**

Intake Name	Primary (y/n)	Water Body Type/Flow	Population Served	Ref.	Value
None					
Total Primary Target Population Value					0
Total Secondary Target Population Value					0

\*\*\* Note : Maximum of 6 Intakes Are Printed \*\*\*

Apportionment Documentation for a Blended System

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**Human Food Chain Threat Targets**

TARGETS	Suspected Release	No Suspected Release	References
8. Determine the water body type and flow for each fishery within the target limit.			
9. PRIMARY FISHERIES	0		
10. SECONDARY FISHERIES	0	0	
T =	0	0	

**Human Food Chain Threat Targets**

Fishery Name	Primary (y/n)	Water Body Type/Flow	Ref.	Value
None				
Total Primary Fisheries Value				0
Total Secondary Fisheries Value				0

\*\*\* Note : Maximum of 6 Fisheries Are Printed \*\*\*

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**Environmental Threat Targets**

TARGETS	Suspected Release	No Suspected Release	References
11. Determine the water body type and flow (if applicable) for each sensitive environment.			
12. PRIMARY SENSITIVE ENVIRONMENTS	0		
13. SECONDARY SENSITIVE ENVIRONS.	0	0	
T =	0	0	

**Environmental Threat Targets**

Sensitive Environment Name	Primary (y/n)	Water Body Type/Flow	Ref.	Value
None				
Total Primary Sensitive Environments Value				0
Total Secondary Sensitive Environments Value				0
*** Note: Maximum of 6 Sensitive Environments Are Printed ***				

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**Surface Water Pathway Threat Scores**

Threat	Likelihood of Release(LR) Score	Targets(T) Score	Pathway Waste Characteristics (WC) Score	Threat Score LR x T x WC / 82,500
Drinking Water	500	5	32	1
Human Food Chain	500	0	32	0
Environmental	500	0	32	0

<b>SURFACE WATER PATHWAY SCORE:</b>	<b>1</b>
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Soil Exposure Pathway Criteria List  
Resident Population

Is any residence, school, or daycare facility on or within 200 feet of an area of suspected contamination? (y/n/u)	Y
Is any residence, school, or daycare facility located on adjacent land previously owned or leased by the site owner/operator? (y/n/u)	N
Is there a migration route that might spread hazardous substances near residences, schools, or daycare facilities? (y/n/u)	Y
Have onsite or adjacent residents or students reported adverse health effects, exclusive of apparent drinking water or air contamination problems? (y/n/u)	N
Does any neighboring property warrant sampling? (y/n/u)	Y
Other criteria? (y/n)	N

RESIDENT POPULATION IDENTIFIED? (y/n) Y

Summarize the rationale for Resident Population:

The resident population was derived from the site reconnaissance and four mile radius topographic map. A potential soil contamination problem may exist on nearby resident properties resulting from migration of potentially contaminated groundwater. Surficial soil contamination on nearby property driven by airborne contaminants is not likely.

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SOIL EXPOSURE PATHWAY SCORESHEETS

Pathway Characteristics

	Ref.
Do any people live on or within 200 ft of areas of suspected contamination? (y/n)	Yes 1
Do any people attend school or daycare on or within 200 ft of areas of suspected contamination? (y/n)	Yes 4
Is the facility active? (y/n):	No 0

LIKELIHOOD OF EXPOSURE	Suspected Contamination	References
1. SUSPECTED CONTAMINATION LE =	550	

Targets

2. RESIDENT POPULATION 6 resident(s) 0 school/daycare student(s)	60	1, 4
3. RESIDENT INDIVIDUAL	50	
4. WORKERS 1 - 100	5	
5. TERRES. SENSITIVE ENVIRONMENTS	0	
6. RESOURCES	5	
T =	120	

WASTE CHARACTERISTICS

WC = 32

RESIDENT POPULATION THREAT SCORE:

26

NEARBY POPULATION THREAT SCORE:

1

Population Within 1 Mile: 1 - 10,000

SOIL EXPOSURE PATHWAY SCORE:

27

Soil Exposure Pathway Terrestrial Sensitive Environments

Terrestrial Sensitive Environment Name	Reference	Value
None		
Total Terrestrial Sensitive Environments Value		
*** Note : Maximum of 7 Sensitive Environments Are Printed ***		

Air Pathway Criteria List  
Suspected Release

Are odors currently reported? (y/n/u)	N
Has release of a hazardous substance to the air been directly observed? (y/n/u)	N
Are there reports of adverse health effects (e.g., headaches, nausea, dizziness) potentially resulting from migration of hazardous substances through the air? (y/n/u)	U
Does analytical/circumstantial evidence suggest release to air? (y/n/u)	U
Other criteria? (y/n)	N

SUSPECTED RELEASE? (y/n) N

Summarize the rationale for Suspected Release:

A release to air is not suspected because previous Environmental Protection Agency files have documented a lack of odors coming from the landfill during operations. During a site reconnaissance there were no odors noticed or blowing debris. The landfill had a soil covering of unknown thickness on the top and sides of the landfill. Vegetation was covering a majority of the area which would limit the amount of materials released to air during windy conditions.

Ref: 3

AIR PATHWAY SCORESHEETS

Pathway Characteristics

Do you suspect a release? (y/n)			No	Ref.
Distance to the nearest individual (feet):			100	1
LIKELIHOOD OF RELEASE	Suspected Release	No Suspected Release	References	
1. SUSPECTED RELEASE	0			
2. NO SUSPECTED RELEASE		500		
LR =	0	500		

Targets

TARGETS	Suspected Release	No Suspected Release	References
3. PRIMARY TARGET POPULATION 0 person(s)	0		
4. SECONDARY TARGET POPULATION	0	3	
5. NEAREST INDIVIDUAL	0	20	
6. PRIMARY SENSITIVE ENVIRONS.	0		
7. SECONDARY SENSITIVE ENVIRONS.	0	0	
8. RESOURCES	0	5	
T =	0	28	

WASTE CHARACTERISTICS

WC =	0	32
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AIR PATHWAY SCORE:

5
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**Pathway Secondary Target Populations**

Distance Categories	Population	References	Value
Onsite	0		0
Greater than 0 to 1/4 mile	8	1,2	1
Greater than 1/4 to 1/2 mile	11	1,2	0
Greater than 1/2 to 1 mile	37	1,2	0
Greater than 1 to 2 miles	212	1,2	0
Greater than 2 to 3 miles	861	1,2	1
Greater than 3 to 4 miles	1092	1,2	1
Total Secondary Population Value			3

Air Pathway Primary Sensitive Environments

Sensitive Environment Name	Reference	Value
None		
Total Primary Sensitive Environments Value		

\*\*\* Note : Maximum of 7 Sensitive Environments Are Printed\*\*\*

Air Pathway Secondary Sensitive Environments

Sensitive Environment Name	Distance	Reference	Value
None			
Total Secondary Sensitive Environments Value			

SITE SCORE CALCULATION	SCORE
GROUND WATER PATHWAY SCORE:	37
SURFACE WATER PATHWAY SCORE:	1
SOIL EXPOSURE PATHWAY SCORE:	27
AIR PATHWAY SCORE:	5
SITE SCORE:	23

SUMMARY

1. Is there a high possibility of a threat to any nearby drinking water well(s) by migration of a hazardous substance in ground water? Yes

If yes, identify the well(s).

3 wells within a 1/4 mile of the site

If yes, how many people are served by the threatened well(s)? 9

2. Is there a high possibility of a threat to any of the following by hazardous substance migration in surface water?

A. Drinking water intake

No

B. Fishery

No

C. Sensitive environment (wetland, critical habitat, others)

No

If yes, identity the target(s).

3. Is there a high possibility of an area of surficial contamination within 200 feet of any residence, school, or daycare facility? Yes

If yes, identify the properties and estimate the associated population(s)  
Three properties with approximately 8 people

4. Are there public health concerns at this site that are not addressed by PA scoring considerations? No

If yes, explain:

REFERENCE LIST

1. U.S.G.S. Topographic Map. 4 Mile radius of Rock Valley Disposal Site.
2. U.S. Department of Commerce, Bureau of the Census. "1990 Census of Population and Housing," Illinois.
3. Illinois Environmental Protection Agency Reports Regarding Sandusky Landfill. Documents placed in division file at Illinois Environmental Protection Agency Springfield, Illinois.
4. Site Reconnaissance at Rock Valley Disposal. May 19, 1993.
5. Hackett. J. and Bergstrom. R. Groundwater In Northwestern Illinois. Division of the Illinois State Geological Survey. Circular 207. 1956.